AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An image forming device comprising:

an image carrier which holds a toner image formed by developing;

a contact transfer body which is arranged so as to contact with ~~a transfer area of~~ the image carrier;

a transfer bias application device ~~means~~ which applies a transfer bias to the contact transfer body for transferring the toner image on the image carrier to a recording ~~paper~~element;

a transfer body cleaning device ~~means~~ which applies a transfer cleaning bias whose polarity is inverted from that of the transfer bias to the contact transfer body for performing a cleaning operation for a toner which is attached or remained on the contact transfer body, the transfer body cleaning device ~~means~~ comprising:

a transfer body resistance detecting section which detects and outputs a value of an electrical resistance of the contact transfer body; and

a cleaning bias control section which changes an applying time of the transfer cleaning bias based on a detection output signal from the transfer body resistance detecting section,

wherein the cleaning bias control section varies the applying time of the transfer cleaning bias based on a size judgment signal for the recording element in addition to based on the detection output signal from the transfer body resistance detecting section.

2. (Currently Amended) The image forming device according to claim 1, wherein the transfer bias application device~~means~~ is constituted to optimize a voltage of the transfer bias based on the value of the electrical resistance of the contact transfer body and the transfer body

resistance detecting section of the transfer body cleaning device ~~means~~ is used as a part of the transfer bias application device~~means~~.

3. (Cancelled).

4. (Original) The image forming device according to claim 1, wherein the contact transfer body is formed by using material of ionic conductivity.

5. (Original) The image forming device according to claim 1, further comprising a reference value which is set in the cleaning bias control section for the detection output signal from the transfer body resistance detecting section so as to correspond to humidity environment, wherein an applying time of the transfer cleaning bias is changed according to a large/small comparison with the reference value.

6. (Currently Amended) The image forming device according to claim 1, wherein the cleaning bias control section is constituted such that an applying time of an electrifying bias is changed at the time of a cleaning operation of a primary electrifying bias control device ~~means for~~ electrifying a surface of the image carrier.

7. (New) An image forming device comprising:

an image carrier which holds a toner image formed by developing;

a contact transfer body which is arranged so as to contact with the image carrier;

a transfer bias application device which applies a transfer bias to the contact transfer body for transferring the toner image on the image carrier to a recording element;

a transfer body cleaning device which applies a transfer cleaning bias whose polarity is inverted from that of the transfer bias to the contact transfer body for performing a cleaning operation for a toner which is attached or remained on the contact transfer body, the transfer body cleaning device comprising:

a transfer body resistance detecting section which detects and outputs a value of an electrical resistance of the contact transfer body changing according to humidity and temperature environment; and

a cleaning bias control section which changes an applying time of the transfer cleaning bias based on a detection output signal from the transfer body resistance detecting section.

8. (New) The image forming device according to claim 7, wherein the transfer bias application device is constituted to optimize a voltage of the transfer bias based on the value of the electrical resistance of the contact transfer body and the transfer body resistance detecting section of the transfer body cleaning device is used as a part of the transfer bias application device.

9. (New) The image forming device according to claim 7, wherein the contact transfer body is formed by using material of ionic conductivity.

10. (New) The image forming device according to claim 7, wherein the cleaning bias control section is constituted such that an applying time of an electrifying bias is changed at the time of a cleaning operation of a primary electrifying bias control device for electrifying a surface of the image carrier.

11. (New) The image forming device according to claim 7, wherein a reference value which is set in the cleaning bias control section for the detection output signal from the transfer body resistance detecting section so as to correspond to humidity environment, wherein an applying time of the transfer cleaning bias is changed according to a large/small comparison with the reference value.

12. (New) An image forming device comprising:

an image carrier;

a contact transfer body which is arranged so as to contact with the image carrier;

a transfer bias application device configured to apply a transfer bias to the contact transfer body transferring a toner image on the image carrier to a recording element;

a transfer body cleaning device configured to apply a transfer cleaning bias to remove toner which remains on the contact transfer body, the transfer body cleaning device varies the applying time of the transfer cleaning bias based on a size judgment signal for the recording element and a condition of an environment surrounding the image forming device.